



BWSR New Staff Orientation 2014

Ron Shelito, BWSR Regional Supervisor



Conserving Minnesota Resources

A Statewide View





103A.206 SOIL AND WATER CONSERVATION POLICY

(1967/1990)

- Maintaining and enhancing the quality of soil contribute greatly to the health, safety, economic well-being, and general welfare of this state and its citizens.
- Soil and water conservation measures provide benefits to the general public by reducing erosion, sedimentation...

➤ (Who was Governor in 1967)



SOIL AND WATER CONSERVATION POLICY

M.S. 103A.206

The soil and water conservation policy of the state is to encourage land occupiers to conserve soil, water, and the natural resources they support through the implementation of practices that:

- prevent erosion and sedimentation
- protect water quality
- reduce damages caused by floods
- preserve wildlife
- protect the tax base; and





Resources

Minnesota State Governors

1967 – 2014

Governor		Took Office	Left Office	Party
Harold LeVander		January 2, 1967	January 4, 1971	Republican
Wendell R. Anderson		January 4, 1971	December 29, 1976 ^[2]	Democratic-Farmer-Labor
Rudy Perpich		December 29, 1976 ^[3]	January 4, 1979	Democratic-Farmer-Labor
Al Quie		January 4, 1979	January 3, 1983	Independent-Republican
Rudy Perpich		January 3, 1983	January 7, 1991	Democratic-Farmer-Labor
Arne H. Carlson		January 7, 1991	January 4, 1999	Independent-Republican/Republican
Jesse Ventura ^[8]		January 4, 1999	January 6, 2003	Reform/Independence
Tim Pawlenty		January 6, 2003	January 3, 2011	Republican
Mark Dayton		January 3, 2011	<i>Incumbent</i>	Democratic-Farmer-Labor



Governance Basics



Key Statutes

All Power Derived From Statutes

- 103A Water Policy
- 103B Water Planning
- 103C SWCD law
- 103D Watershed District law
- 103E Drainage Law
- 103F Shoreland, Floodplain, RIM, others
- 103G WCA
- 103H Groundwater Protection
- Cleanwater, Wildlife, Cultural Heritage, and Natural Area Amendment

RIM Bill Approved

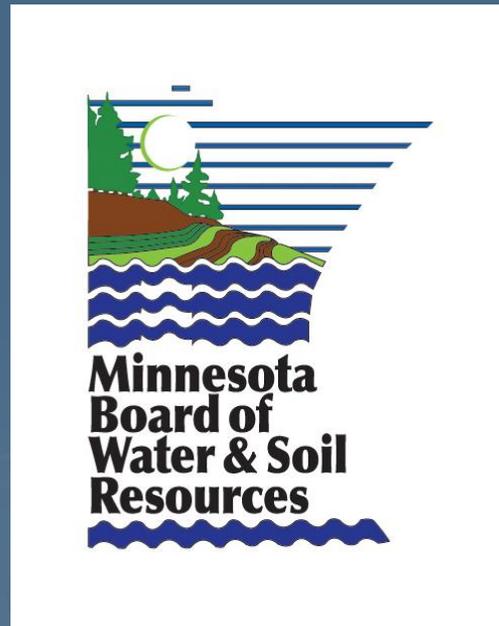


Legislative and conservation leaders look on as Governor Perpich signs the Reinvest In Minnesota (RIM) bill. Left to right are: Senator Gene Merriam; Wally Bernhardson, SWCB Chairman; Senator Steve Novak; Governor Perpich; Dorothy Waltz, MASWCD; Rep. Willard Munger; Jim Birkholz, SWCB. For more information see Capitol Contacts column, page 3.



BWSR

- **BWSR Mission:** *Improve and protect Minnesota's water and soil resources by working in partnership with local organizations and private landowners.*





BWSR

➤ History

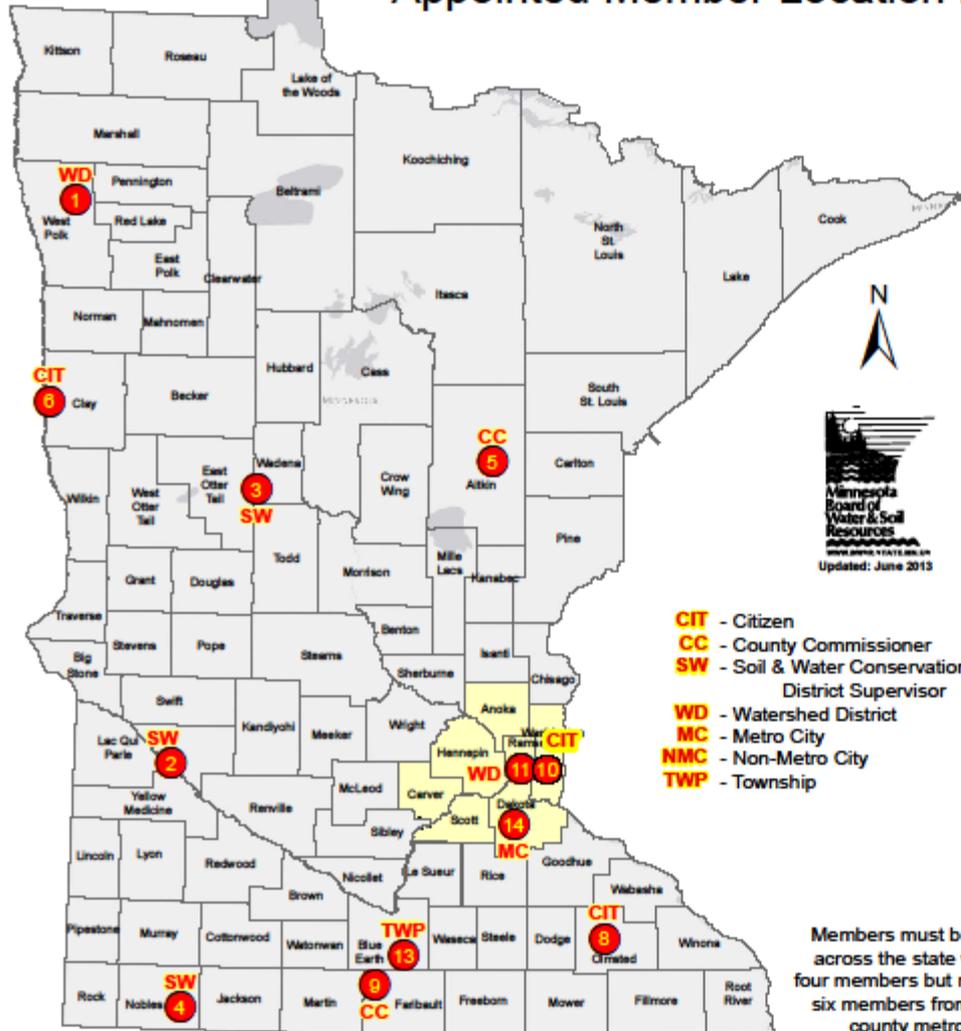
- 1937- State Conservation Committee organized SWCDs around the state
- 1950-transferred to U of M soils department
- 1971-transferred to DNR
- 1975-name changed to Soil and Water Conservation Board (SWCB)- first major staff hiring
- 1987-combined SWCB, Water Resources Board, and southern MN River Basin council into BWSR
- Authority to work with SWCDS, WDS, and Counties.



BWSR

- State oversight agency for SWCD's, WDs, and to much lesser degree counties.
- 20 member board, 12 appointed by governor
 - 3 SWCD supervisors
 - 3 WD managers
 - 3 county commissioners
 - 3 citizens at large
 - 2 cities
 - 1 TWP
 - 5 agency reps (DNR, MPCA, MDH, MDA, MES)

Board of Water and Soil Resources Appointed Member Location Map (2013)



Board Members

ID, Member, Yr. Appt. Ends

- 1, Gene Tiedmann, 2014
 - 2, Steve Sunderland, 2016
 - 3, Tom Schulz, 2017
 - 4, Paul Langseth, 2014
 - 5, Brian Napstad, Chair, 2014
 - 6, Gerald Van Amburg, Vice Chair, 2015
 - 7, Vacant, 2015
 - 8, Judy Ohly, 2017
 - 9, Tom Loveall, 2013
 - 10, Jack Ditmore, 2016
 - 11, Joseph Collins, 2016
 - 12, Vacant, 2015
 - 13, Sandra Hooker, 2016
 - 14, Christy Jo Fogarty, 2017
 - 15, Vacant, 2015
- Seven County Metro Area

Agency Seats

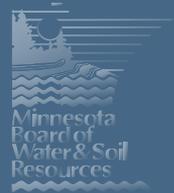
- 16, Matthew Wohlman, MDA
- 17, Chris Elvrum, MDH
- 18, Tom Landwehr, DNR
- 19, Faye Sleeper, UME
- 20, Rebecca Flood, MPCA

Members must be distributed across the state with at least four members but not more than six members from the seven county metro region.



BWSR Staff

- About 115 total, roughly 50% field 50% St. Paul.
- Board Conservationists, Wetland Specialists, Engineers, Easement Specialists, Cleanwater Specialists, Forester, Vegetation Specialists, Grants Compliance Specialists and more
- Three regions (Metro, North, South), 9 offices St. Paul, Rochester, Mankato, Marshall, Fergus Falls (DL), Brainerd, Duluth, Bemidji, New Ulm



BWSR Grants to LGUs

- 75 +/- percent BWSR budget out the door to LGUs
- 33 different programs
- 1000 different grants each year
- Base and Competitive
- Gen Fund, Bonding, LSOHC, CWF, LCCMR, Feds, Disaster funds etc
- Disaster \$ largest grant fund



Local Government Unit Powers and Duties



Counties

- General Purpose Unit of Government, often referred to as “the arm of the State”.
- 87 counties in Minnesota
- Five or seven Commissioners elected
- Other elected officials include sheriff, attorney, auditor, treasurer, and recorder
- Manage property taxing system for all entities with taxing authority, i.e. cities, townships, schools, watershed districts, etc.



Counties: Duties

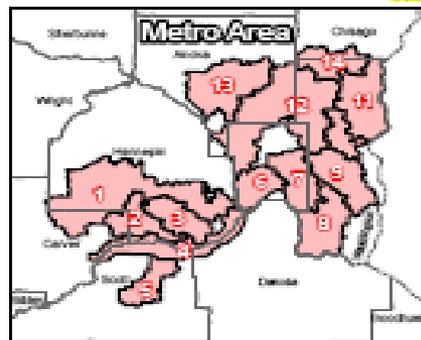
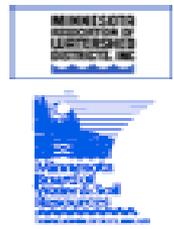
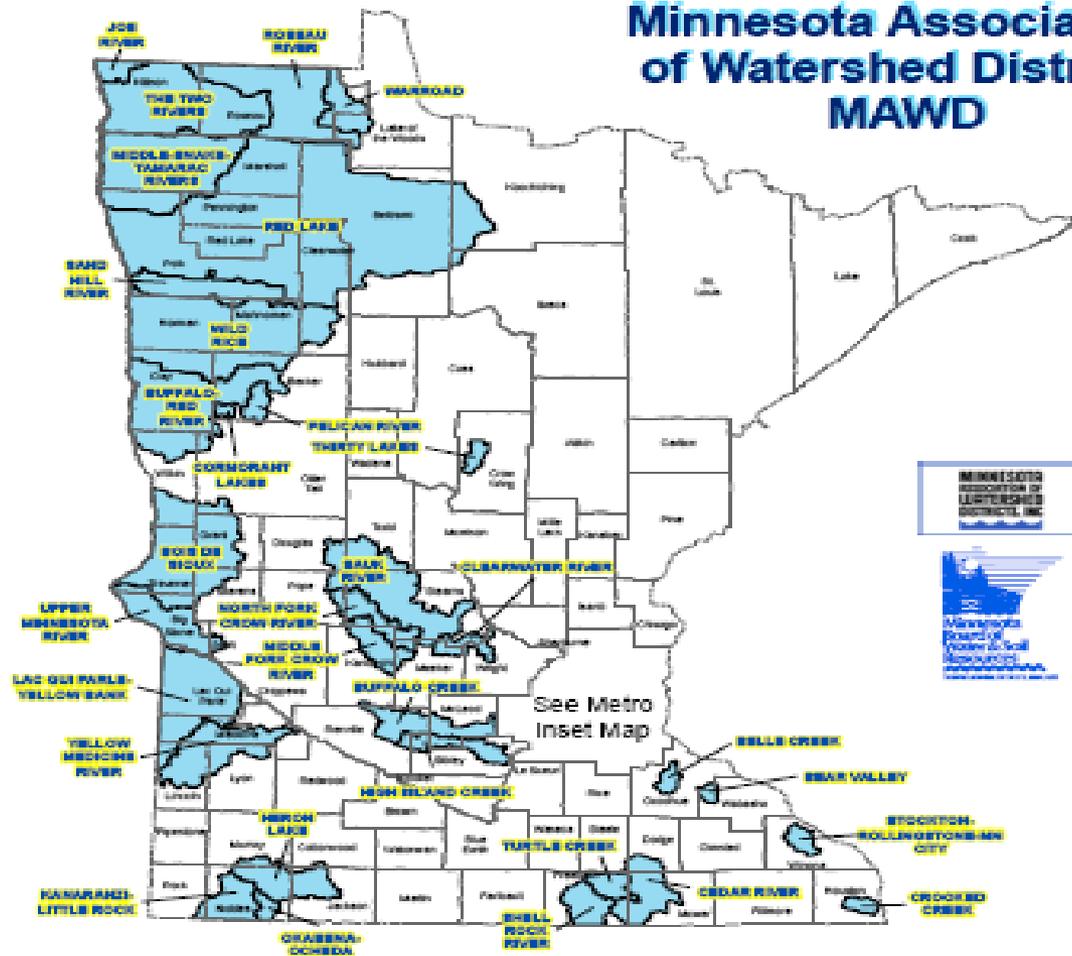
- Planning and Zoning – M.S. 394
- Shoreland Management – M.S. 103F
- Subsurface Sewage Treatment Systems – M.S. 115
- Feedlots – M.S. 116
- Drainage – M.S. 103E
- Solid Waste – M.S. 115A
- Water planning – M.S. 103B
- Wetland Conservation Act – M.S. 103G



Watershed Districts (MS103D)

- Special purpose unit of government
- Watershed boundary based - cross county lines
- Usually specific purpose i.e. flooding, drainage etc.
- Three to nine managers appointed by Co. Comm's
- Taxing/levy authority
- First Established 1957 – High Island Watershed District (parts of Sibley, Renville, McLeod Counties)
- Established/terminated by petition to BWSR

Minnesota Association of Watershed Districts MAWD



Metro Watershed Districts

- | | |
|--|--|
|  1, MINNEHANA CREEK |  8, SOUTH WASHINGTON |
|  2, RELEY-PURGATORY-BLUFF CREEK |  9, VALLEY BRANCH |
|  3, NINE MILE CREEK |  10, BROWNS CREEK |
|  4, LOWER MINNESOTA RIVER |  11, CARNELIAN-MARINE-ST. CROIX |
|  5, PRIOR LAKE-SPRING LAKE |  12, RICE CREEK |
|  6, CAPITOL REGION |  13, COON CREEK |
|  7, RAMSEY-WASHINGTON-METRO |  14, FOREST LK-COMFORT LK |



Soil and Water Districts (MS 103C)

- Special purpose unit of government
- Five elected supervisors
- Usually follow county boundaries (90 total)
- Maintain and enhance quality of soil and water.
103C.005
- No taxing authority but can charge fees
- First established 1938 Burns - Homer - Pleasant
Winona County.
- Established/terminated by petition to BWSR



Diversity of Conservation Organizations

Pheasants Forever
CWL
Landowners
CONGRESS
Cites
CRP
Cost-share
NRCS
LWM
MPCA
BWSR
SWCD
EPA
LSOHC
RIM
EQIP
LCCMR
DNR
Counties
LEGISLATURE
CORPS
WCA
WDs



LGU/ Landowner Connection

- 78% of land is in private ownership
- LGUs have a variety of federal, state, non-profits, etc. to partner with.
- LGUs connect landowner to Fed, state conservation programs
- Rubber hits the road, LGU – Landowner connection
- Funding - BWSR – LGU - Landowner



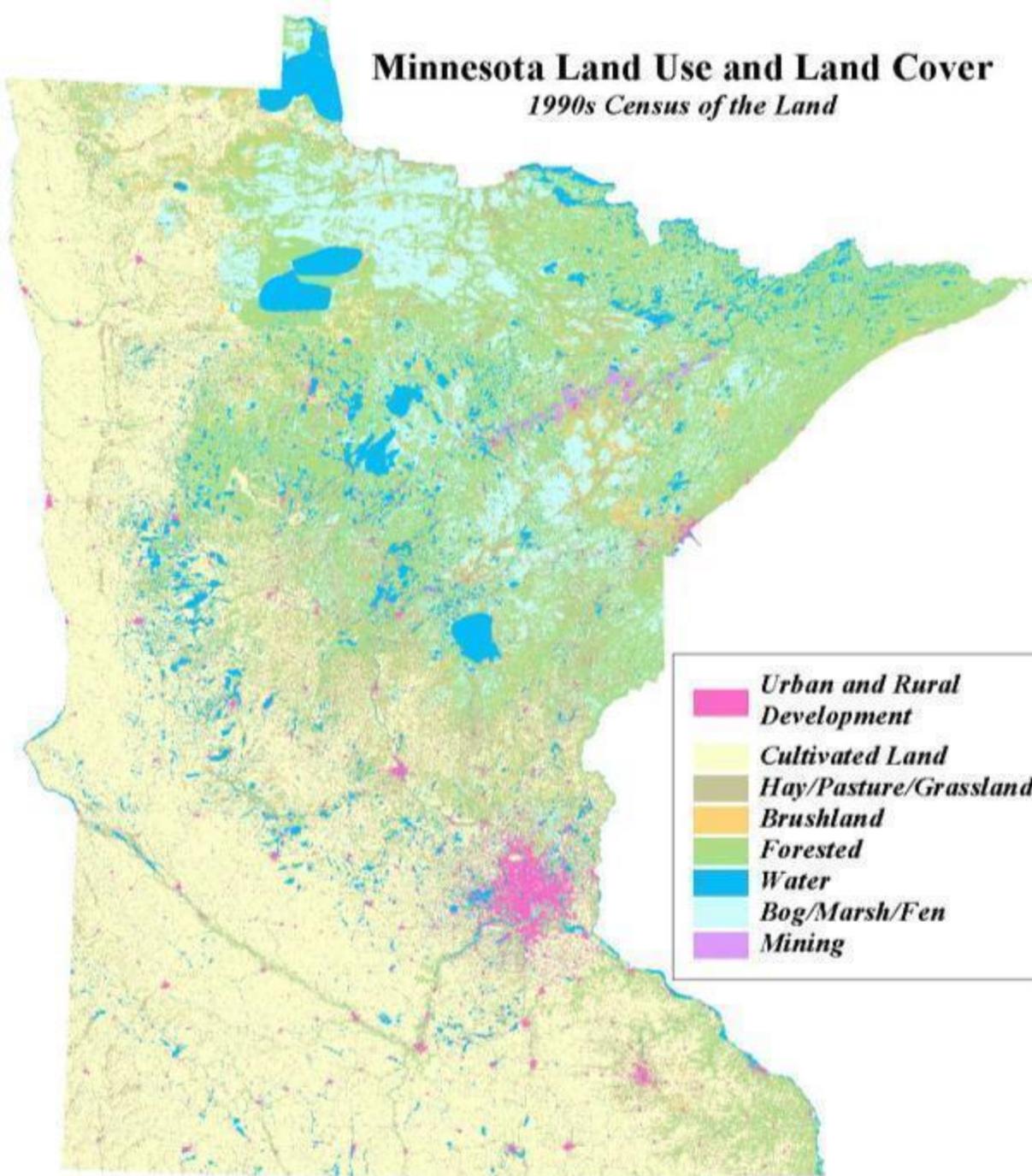
Willing Landowners - Key



Minnesota is a Diverse State



Minnesota Land Use and Land Cover *1990s Census of the Land*



This is Where We Work

78% of State Lands in
MN are Privately
Owned

Lots of Variety in our
Landscapes

Lots of Variety in
Problems and
Solutions

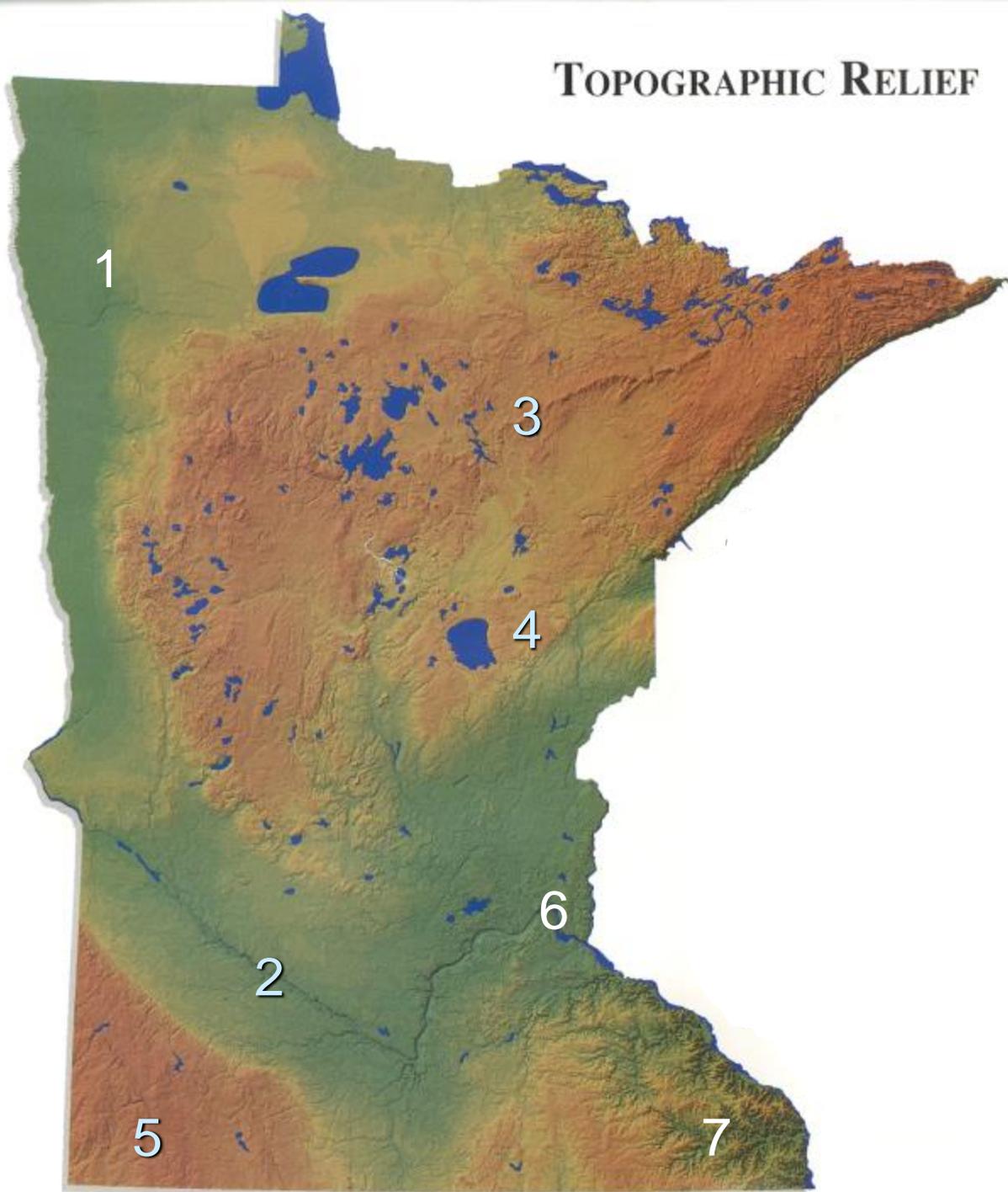


Minnesota Land Use and Cover Statistics

<u>Description</u>	<u>Acreage</u>	<u>Percent Total</u>
➤ Cultivated land	22,694,200	42%
➤ Forested	14,434,482	27%
➤ Bog/marsh/fen	5,728,056	10%
➤ Urban and rural development	1,472,267	3%
➤ Hay/pasture/grassland	4,977,451	9%
➤ Brush land	1,326,796	3%
➤ Water	3,211,643	6%
➤ Mining	147,175	0.3%
➤ Total	53,992,070	100%

Datanet State of Minnesota

TOPOGRAPHIC RELIEF



1. Red River Valley

2. MN River Valley

3. Iron Range

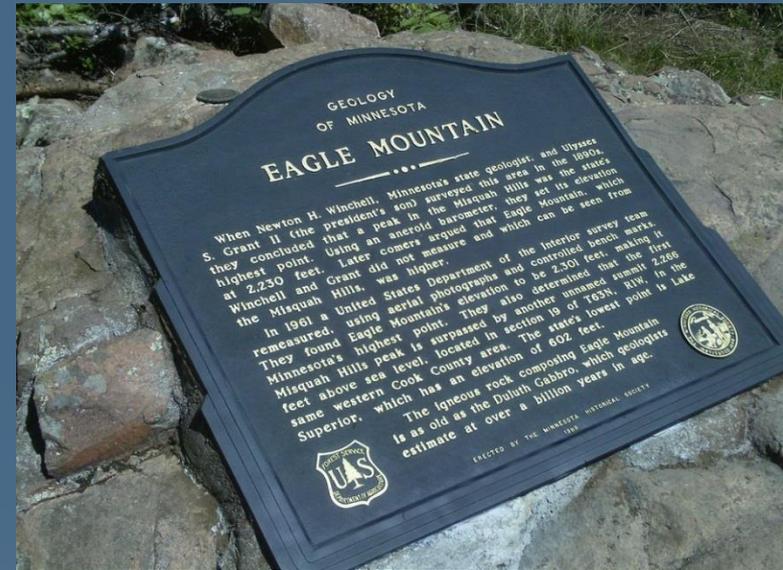
4. Mille Lacs

5. Coteau de Prairies

6. Twin Cities

7. Karst Region

Highest Point in Minnesota, Eagle Mountain



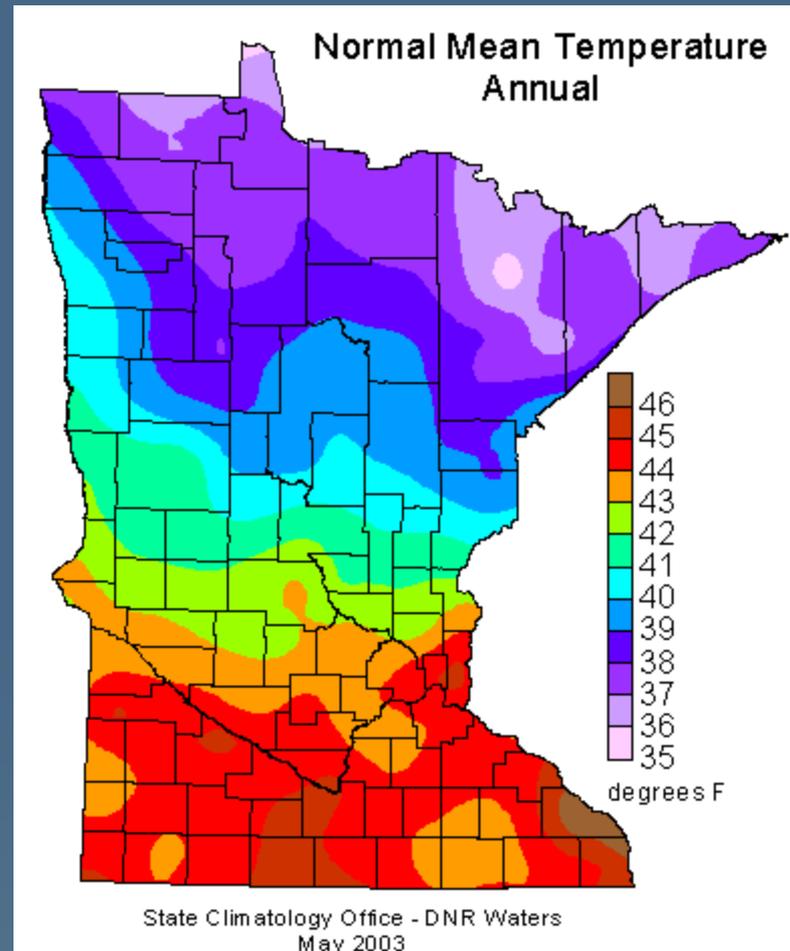
2,230 feet

Lake Superior Lowest Point

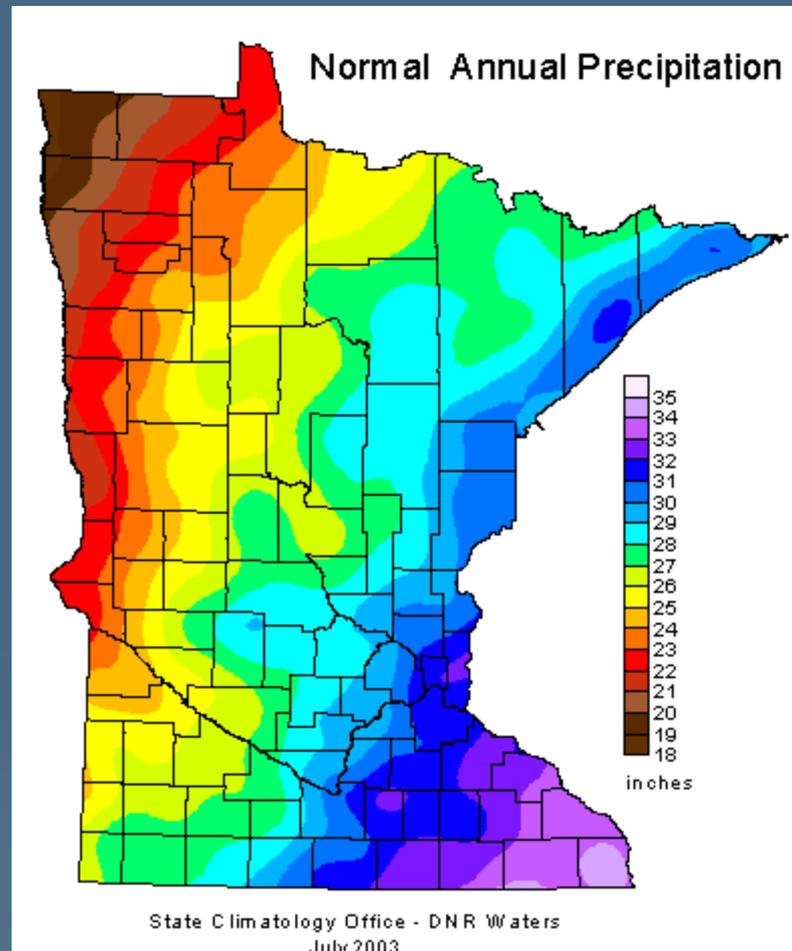


600 feet

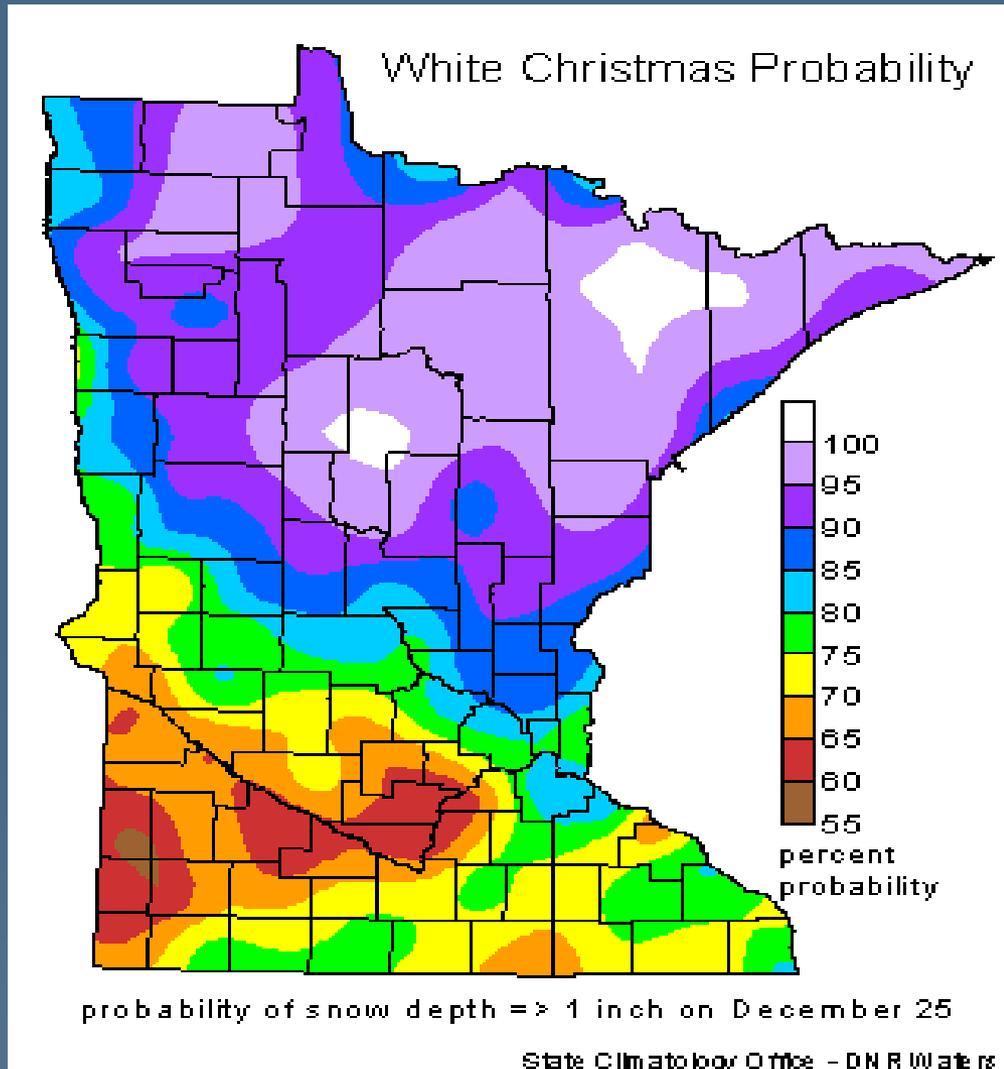
Temperature varies from North to South

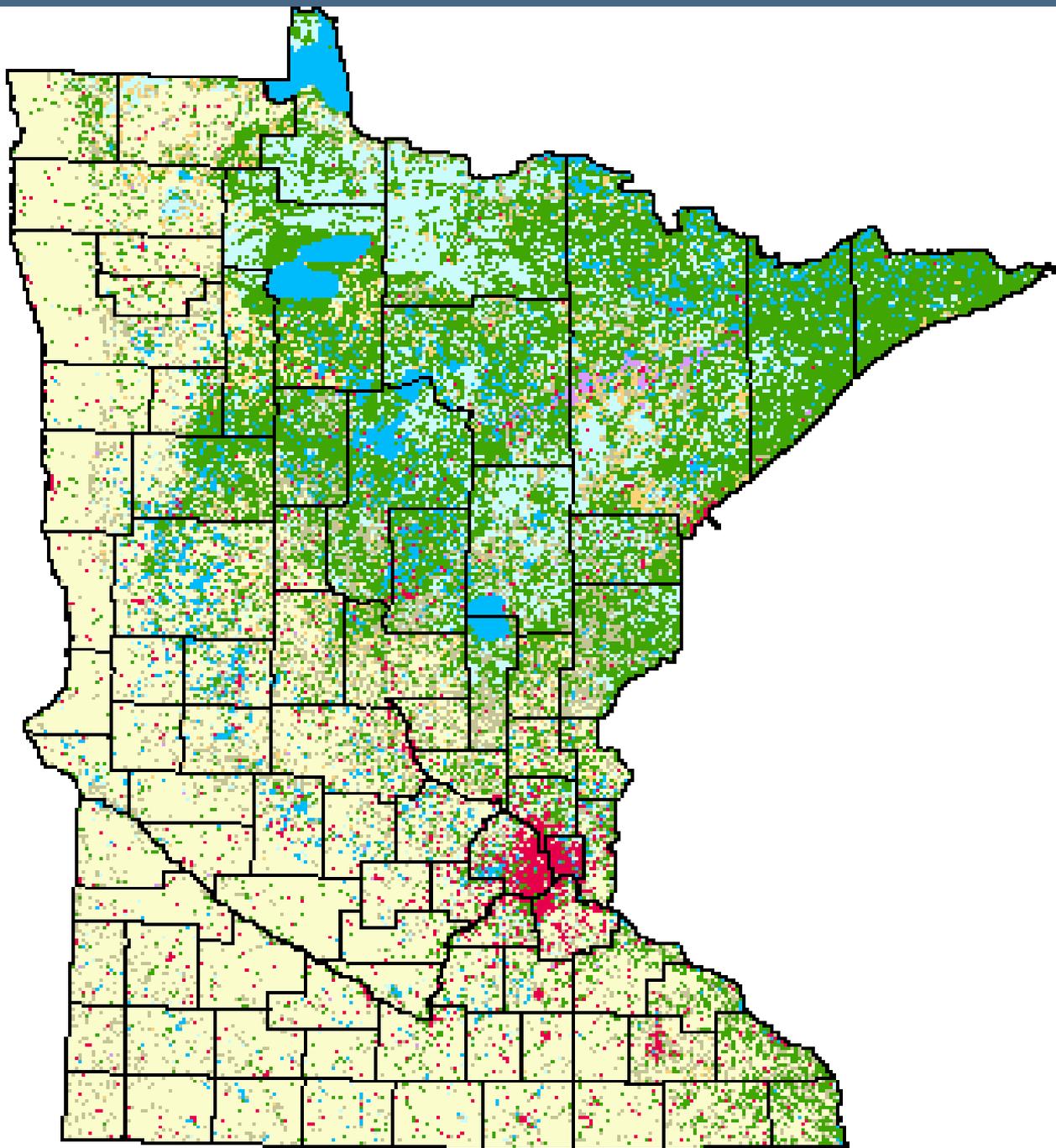


Precipitation varies from Northwest to Southeast



Probability of a White Christmas





Forests
Lakes
Cropland
and
Urban

Itasca County Land Use and Cover

State of Minnesota

June 18, 1995



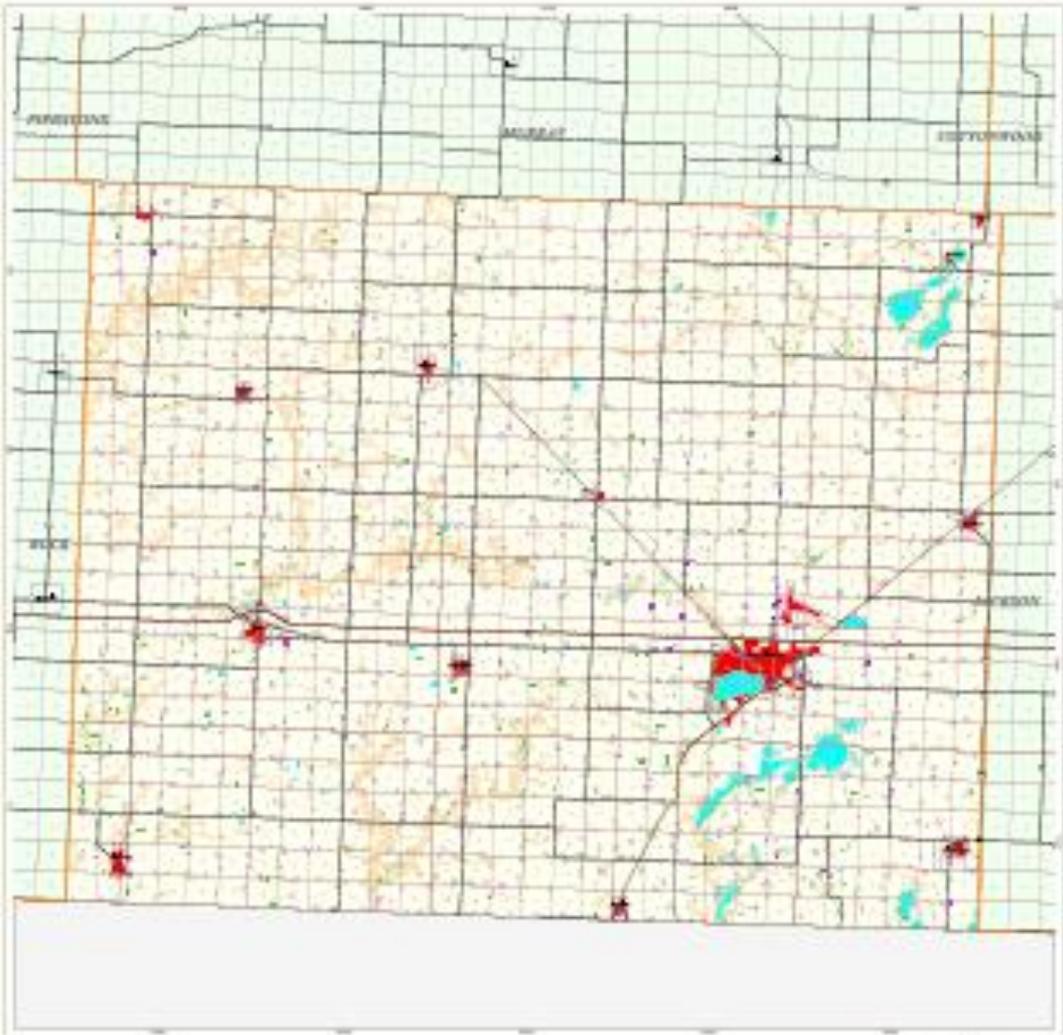
Itasca County

- Forest and Lakes
- Public Land

Nobles County Land Use and Cover

State of Minnesota

JUNE, 2009



Legend

Water	Water
Forest	Forest
Barren	Barren
Open Space	Open Space
Urban	Urban
Developed	Developed
Other	Other

Scale

North Arrow

Inset Map

Metadata

Source

Disclaimer

Contact

Nobles County

- Agriculture
- Few Shallow Lakes
- Private Land

MN Has Agriculture





Ag Statistics 2007 and 2011

➤ 2007

- 79,000 Number of Farms
- 347 Average size farm (acres)

➤ 2011

- 79,800 Number of Farms
- 336 Average size (acres)



Minnesota Crops 2011

➤ Big 5

1. Corn 8,100,000 Acres
2. Soybeans 7,100,000 Acres
3. Wheat 1,500,000 Acres
4. S-Beets 479,000 Acres
5. Oats 180,000 Acres

➤ All else 2,200 to 70,000 Acres

Wild Rice

State Grain of Minnesota
Only Cereal Grain Native to Minnesota
World's largest Producer of Natural Wild Rice (non-cultivated)
Excellent Habitat for Water Fowl

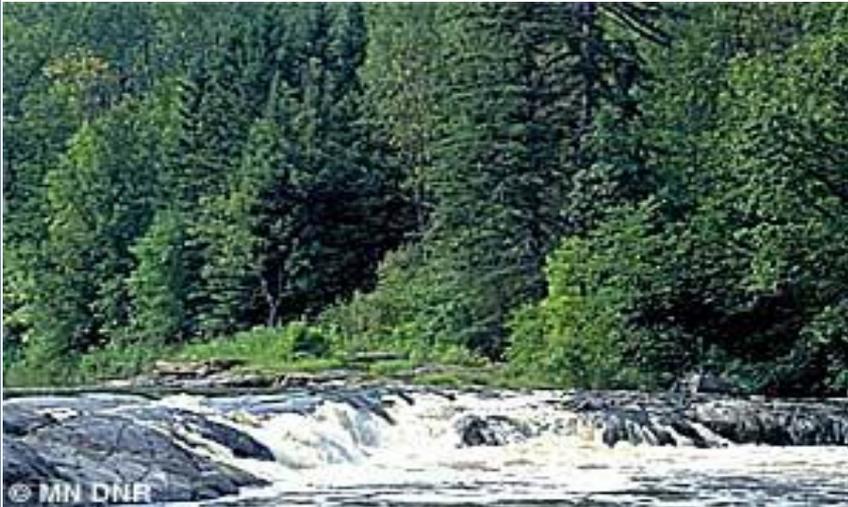






Hormel Company of Austin marketed the first canned ham in 1926 and introduced **Spam** in 1937.

Minnesota Has Forests



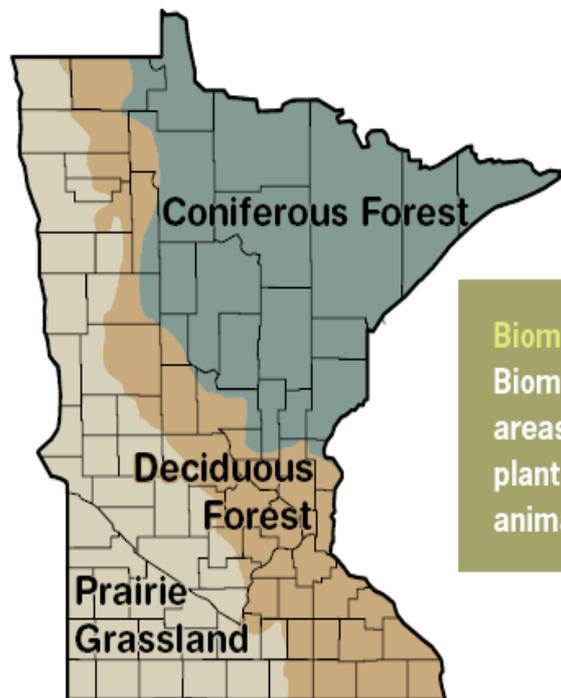
Minnesota is the meeting place of three biomes: the coniferous forest, the deciduous forest, and the prairie. This juxtaposition produces a remarkable diversity in living things within our state.

Trees and forests have always been an important part of Minnesota's natural resource heritage. Today, of Minnesota's 51 million acres of land, 16.3 million acres are forested—almost one-third of our total land area. This forested land can be broken into categories in many ways.

What Kind of Forest Is It?

The kinds of trees that make up a forest vary from place to place, depending on soil, climate, water, topography (the lay of the land), history, and other factors.

Different forests have different combinations of plants and animals. The trees in one forest may be predominantly aspen and birch; another forest may consist largely of spruce and fir trees. Foresters often identify

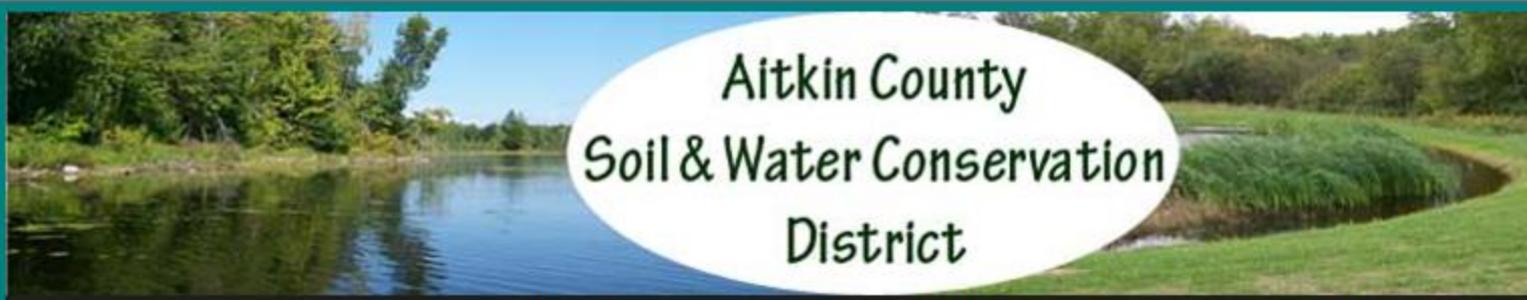


Biomes: Biological communities. Biomes usually occur over large areas and include many similar plant communities and the animals that live in them.

Who Owns It?

Minnesota's forests have many owners. Some forests are owned by the public and managed by public agencies (federal, state, county, local). Others are in the hands of private owners such as individual citizens, forest products companies, and other indus-

Like to learn more about Minnesota's biomes? Detailed descriptions are available at www.dnr.state.mn.us/biomes. Or call the DNR Information Center at 651-296-6157 or 888-646-6367 to request a poster of



Aitkin County Soil & Water Conservation District

- [Home](#)
- [Board Minutes](#)
- [Meetings](#)
- [Reports](#)
- [Events](#)
- [Contact Us](#)

- [Tax Relief for Woodland Owners](#)
- [Water Quality](#)
- [Tree Farming](#)
- [Private Woodlands](#)
- [Forest Stewardship](#)
- [FSC Certification](#)
- [Tree Sales](#)
- [Rivers & Lakes Fair Mission](#)
- [Related Links](#)
- [Aitkin County Champion Trees](#)

Forest Stewardship Program



Minnesota's Soil and Water Conservation Districts are uniquely suited to provide land management assistance to private landowners to protect our water and soil resources. Traditionally, this assistance has been based on agricultural practices, but because of the increasing use of woodlands, conservationists have recognized the need to provide an increasing level of assistance to woodland owners.

Managing private

woodlands can be a challenging and sometimes overwhelming task. The options are endless and the results of poor management decisions can take decades to heal. In the past, technical advice was hard to get, but things have changed. Today, there are many opportunities for landowners to get technical assistance on managing their woodland. One of these





SWCD (218) 326-0017
 NRCS (218) 326-6595
 FAX (218) 326-8938

Itasca County Soil and Water Conservation District

- Home
- About Us
- News
- Programs
- Native Plant Sale
- Firewise
- Contact

Programs

Wetlands



Click on the photos to learn more about how the District and how it is involved in each of these resource areas.

Forestry



Minnesota Has Urban Areas





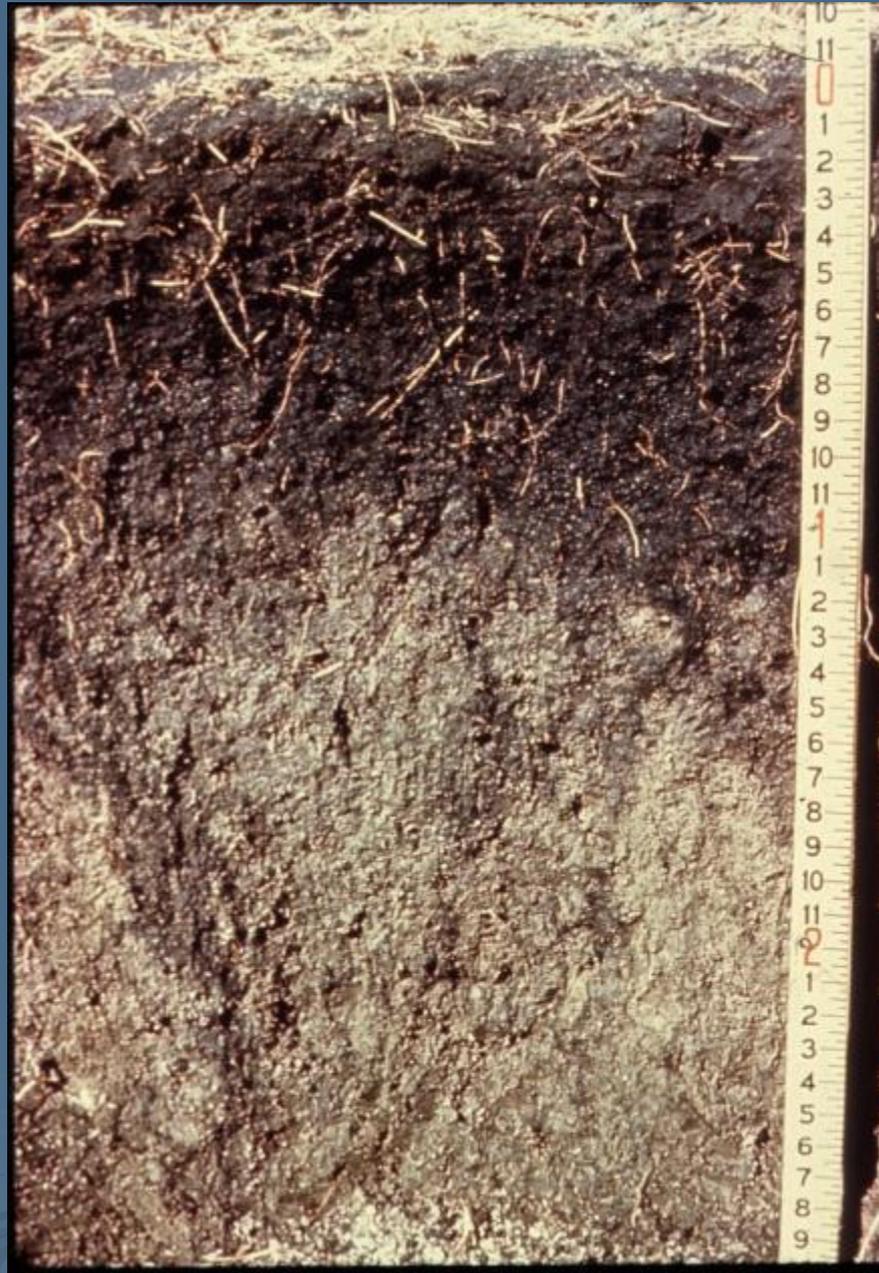
Minnesota Cities Population 2011

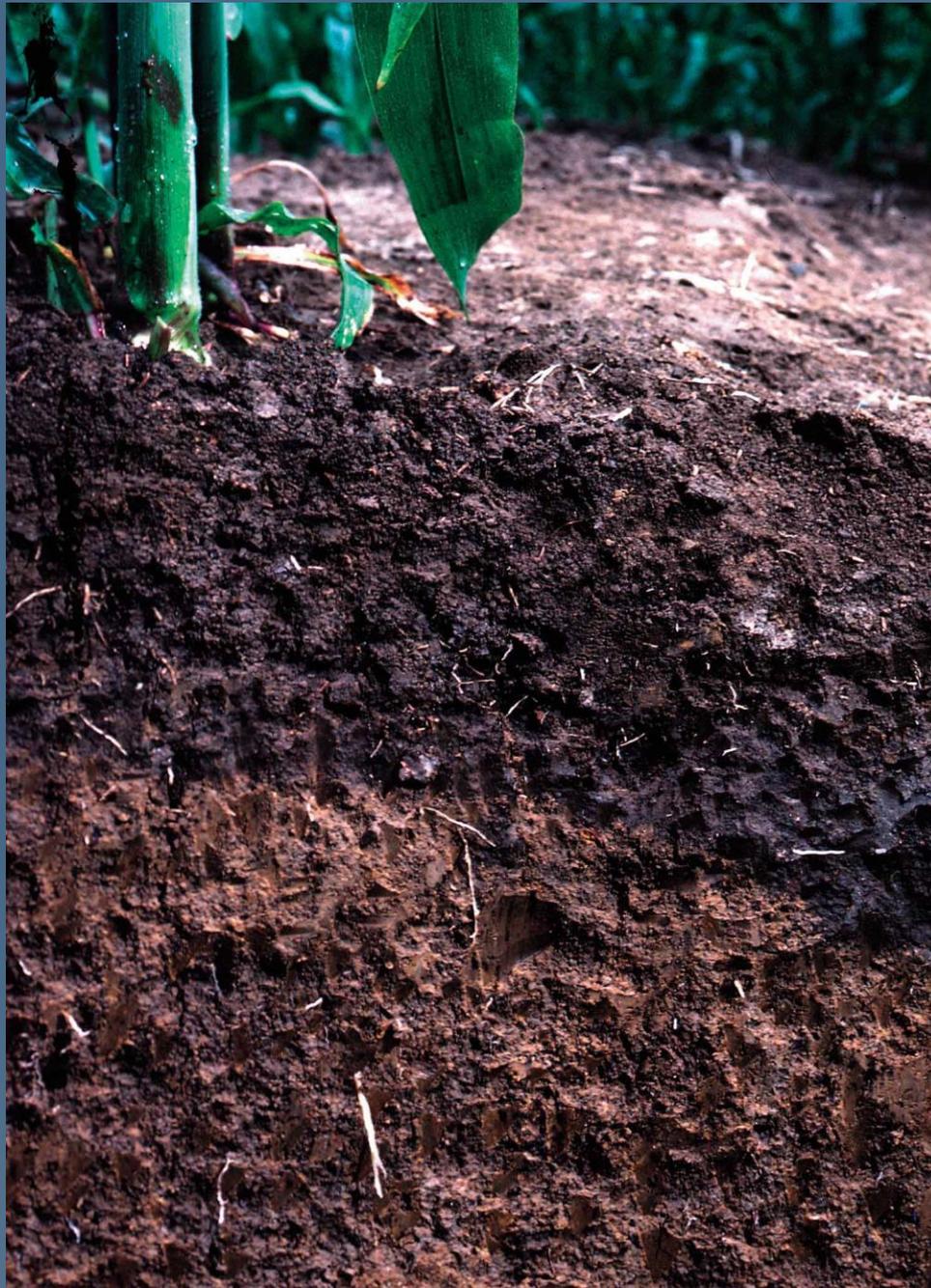
1.	Minneapolis	382,578
2.	St Paul	285,068
3.	Rochester	106,769
4.	Duluth	86,265
5.	Bloomington	82,893
6.	Brooklyn Park	75,781
7.	Plymouth	70,576
8.	St. Cloud	65,842



Hibbing is the birthplace of the American bus industry. It sprang from the business acumen of Carl Wickman and Andrew Anderson who opened the first bus line between Hibbing and Alice in 1914; later to become the Greyhound Bus Line.

MN has
good soils
and...





Not so good soil



Minnesota has an Iron Range







But Minnesota is mostly known for its water

- Minnesota has 90,000 miles of shoreline (more than California, Hawaii and Florida combined)
- The St. Lawrence Seaway opened in 1959 allowing ocean going ships to reach Duluth
- 10-15 thousand lakes but who's counting

Minnesota Has Lakes





Little, Quaint Lakes



Sprawling Lakes and Lake Chains

An aerial photograph of a large, deep mine pit lake. The water is a deep, clear blue. The surrounding land is a mix of reddish-brown earth and sparse green vegetation. In the background, a dense line of trees is visible under a clear blue sky. The text "Mine Pit Lake on the Iron Range" is overlaid in white on the left side of the image.

Mine Pit
Lake on
the Iron
Range

We've Got Lakes That Look Like Oceans



**There are
201 Mud Lakes,
154 Long Lakes, and 123 Rice Lakes
in Minnesota.**



Minnesota has rivers



MAJOR BASINS AND WATERSHEDS OF MINNESOTA

Red River of the North Basin

Rainy River Basin

Great Lakes Basin

St. Croix River Basin

Upper Mississippi River Basin

Lower Mississippi River Basin

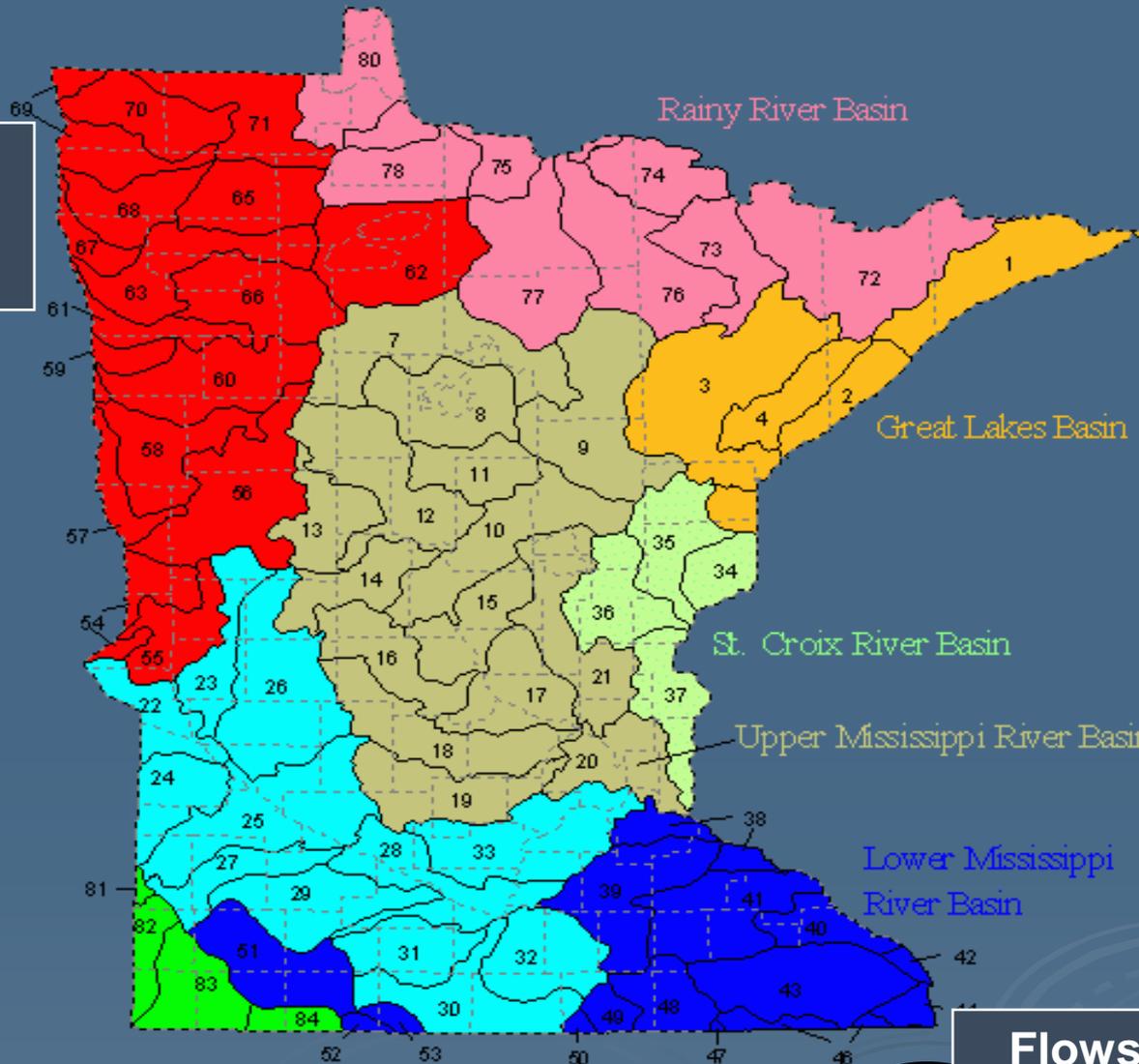
Missouri River Basin

Minnesota River Basin

Flows To Hudson's Bay

Flows To Atlantic Ocean

Flows To Gulf of Mexico





A photograph of a wetland landscape. In the foreground, there are tall, brownish reeds and grasses growing in shallow water. The middle ground shows a larger body of water with several birds, possibly waterfowl, standing or wading. The background consists of a line of green trees under a clear sky. The text "Minnesota Has Wetlands" is overlaid in white on the lower half of the image.

Minnesota Has Wetlands

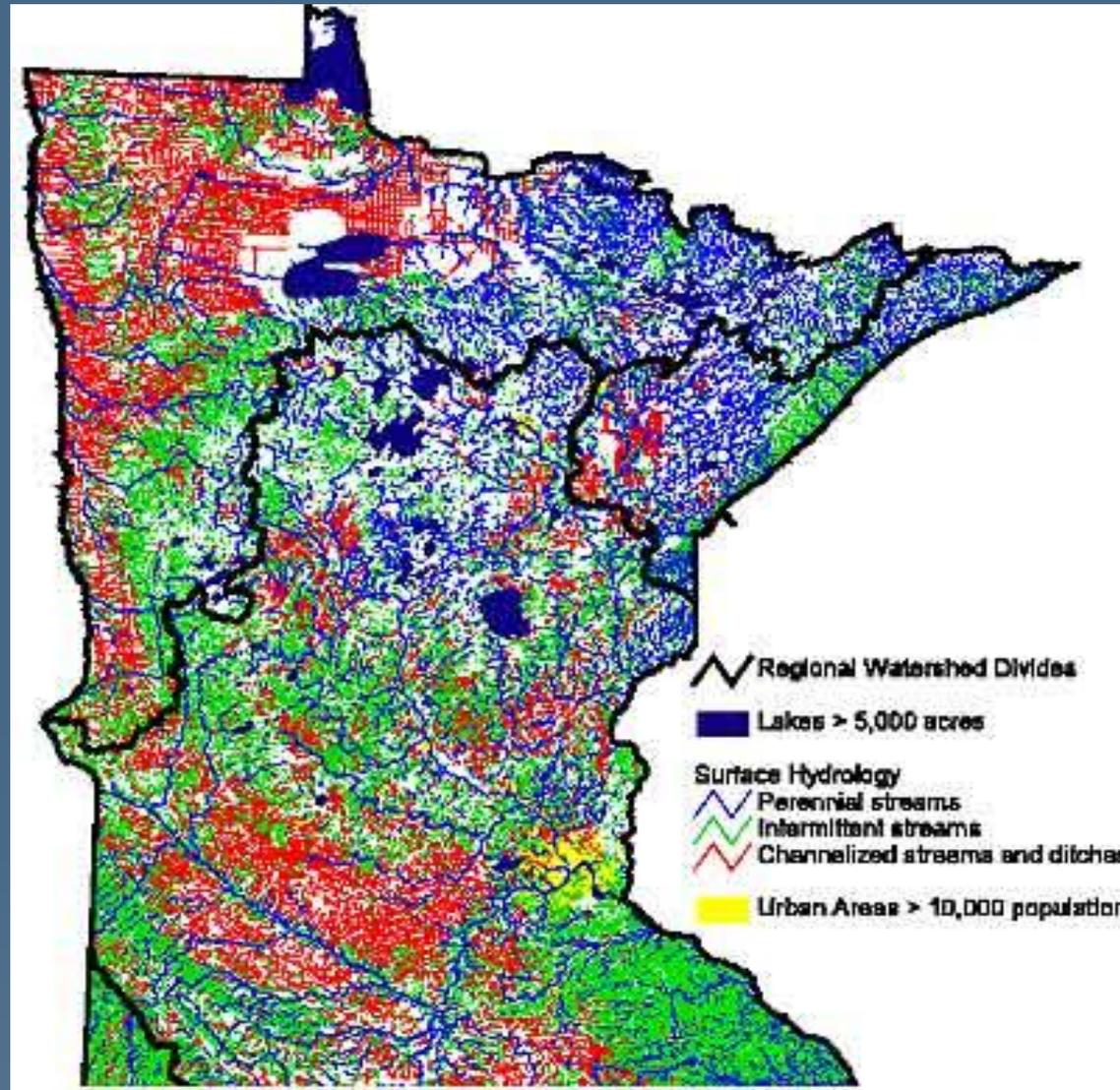
But they don't all
look the same



Minnesota
has done a
pretty good
job of getting
rid of its
excess water



Channelized Streams & Ditches



from the
BUREAU FARMER Aug. 1930

2 ways

to improve your farm with **DYNAMITE**

— the easy, quick, low-cost way to clear your farm
of stumps and boulders...to provide better drainage





New tile installations on the increase



But not always



Minnesota
has more
acres of
flood
prone
cropland
than most
states



Red River Flooding



SE Minnesota Flooding



Houston County



Winona County

Duluth 2012

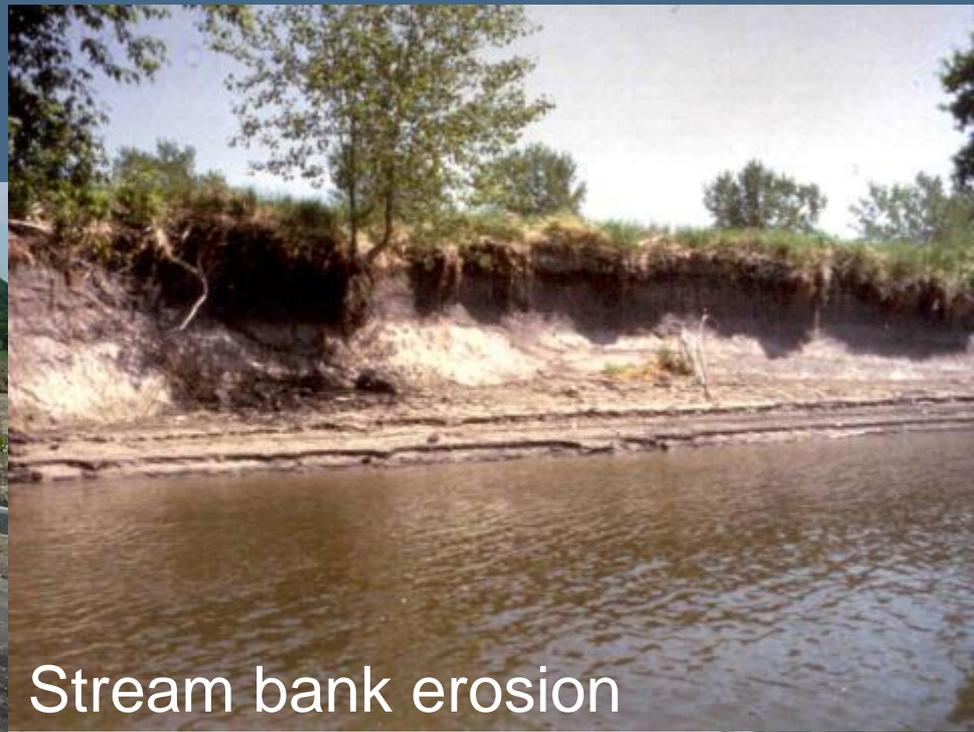




Minnesota Has its Share of Resource Problems



Storm water runoff



Stream bank erosion

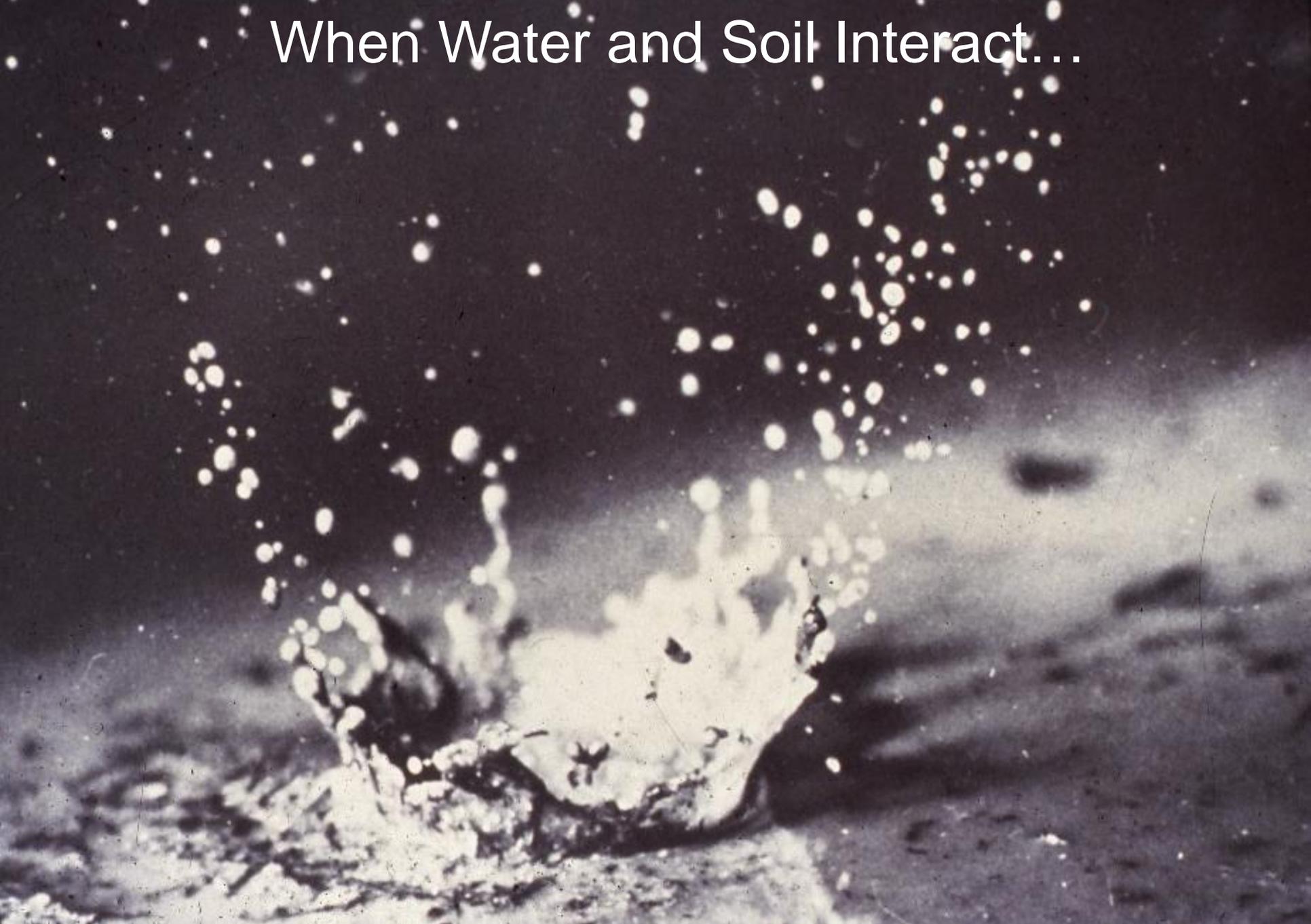


Overland flow



Runoff from construction sites

When Water and Soil Interact...

















The confluence of the Minnesota and Mississippi Rivers. This photo illustrates the pollution and sediment that is contained in the Minnesota, which has been called the state's dirtiest river. (Photo courtesy of the MPCA) |< PrevNext >



Poplar River Sediment

Lake Superior

A photograph of a field with rows of young green plants in reddish-brown soil under a hazy, overcast sky. The text "When wind and soil interact..." is overlaid in the center.

**When wind and
soil interact...**

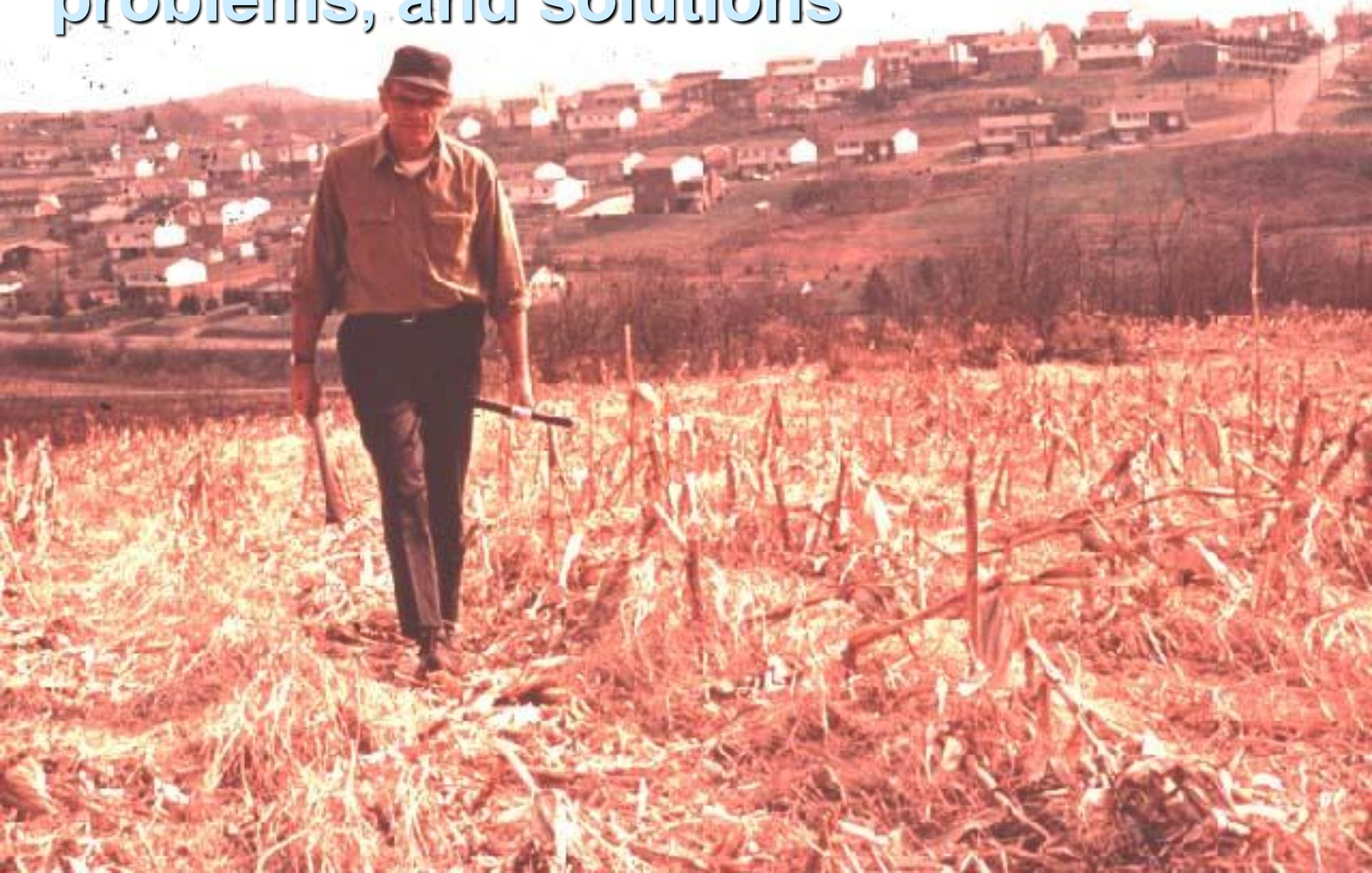








Land use affects problems, and solutions

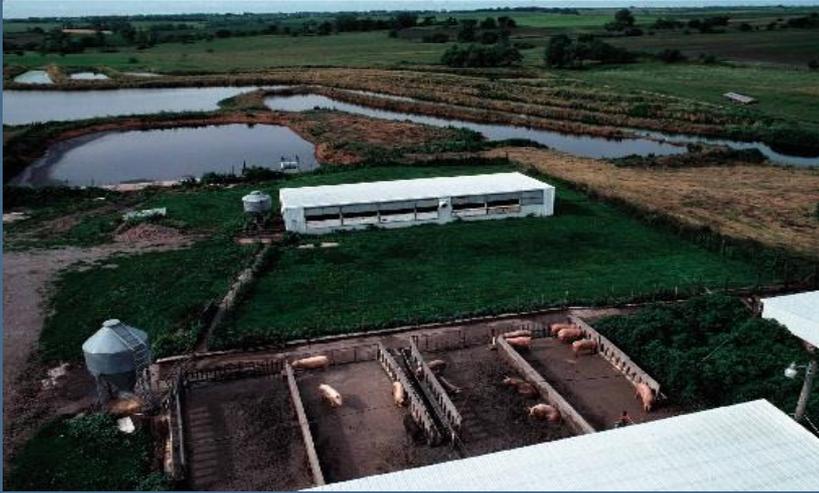




Wind and water erosion
can be controlled by...



BMPs



A photograph showing a grass waterway in a cornfield. The waterway is a narrow, straight path of green grass that runs through the rows of corn plants. The corn plants are dark green and appear to be in the middle of their growth cycle. The sky is a clear, pale blue with a few wispy clouds. In the background, there are several utility poles with power lines stretching across the horizon. The overall scene is a typical agricultural landscape.

Grass Waterway





No Till, Minimum Till



Windbreaks



Multi-Row Windbreak





Ditch buffers





Easements





Wetlands
Reserve
Program

**CONSERVATION
EASEMENT
BOUNDARY**

LANDOWNER &
USDA / NRCS
PARTNERSHIP

**REINVEST IN
MINNESOTA**

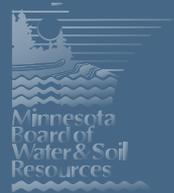


RIM RESERVE
Conservation Easement

Reinvest in Minnesota

Since inception, 6,505 total number of easements have been established on more than 240,000 acres of land





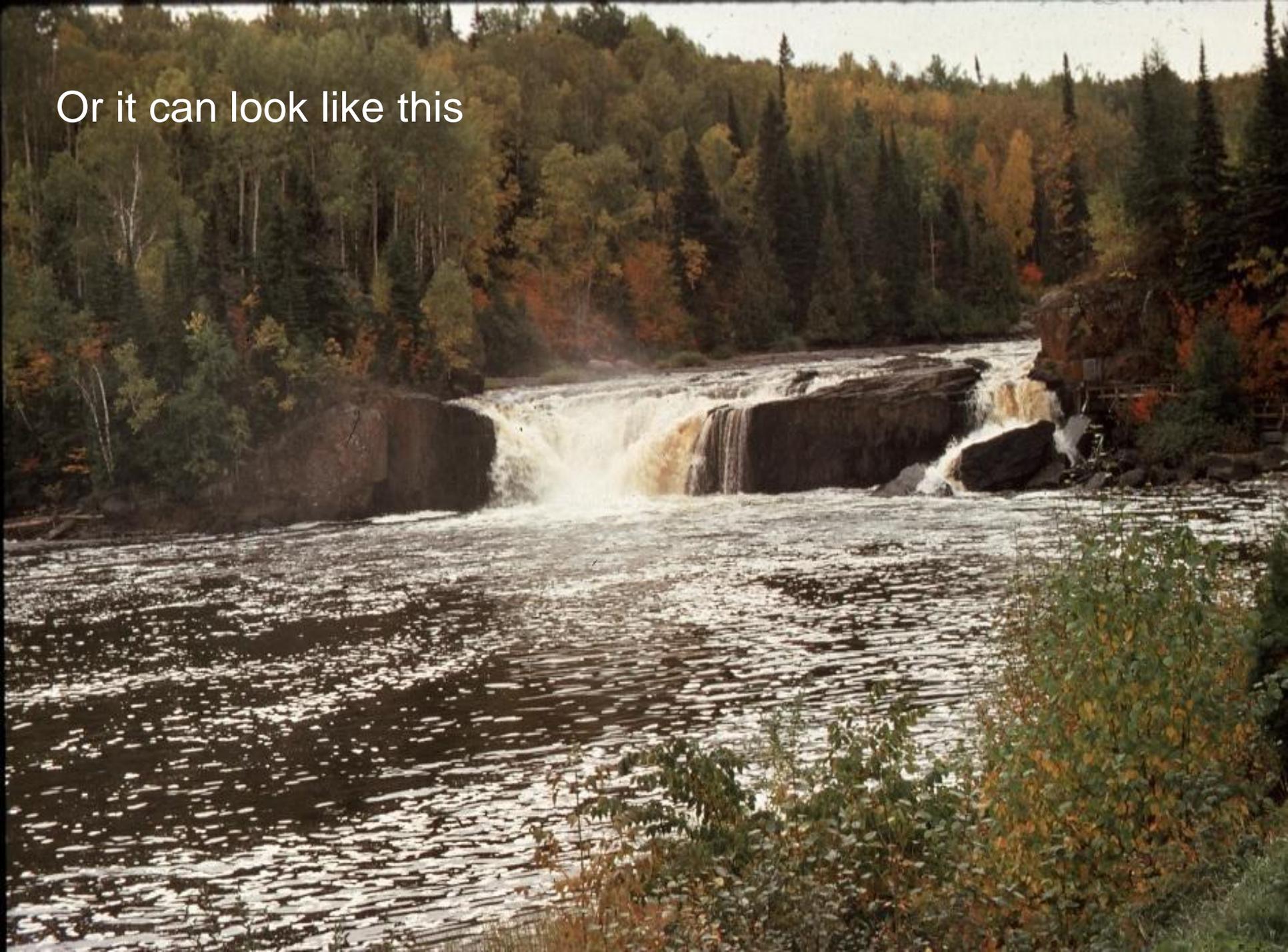
One size doesn't fit all

- Minnesota's diversity means:
 - Diversity of problems
 - Solutions
 - Opinions
 - Successes
 - Attitudes
 - Common Sense
 - Depends on Your Perspective

Minnesota can look like this



Or it can look like this





Understand Minnesota's Diversity

- Important to understand resource concerns of areas, forest, ag., urban, and overall state policy.
- Most programs are developed with a statewide scope, but are local in implementation
- Funding local plans and priorities helps us meet all needs
- BWSR must support local needs but keep statewide interests in mind



Final Fun Facts

- 87 Counties
- 89 SWCDs
- 46 WD
- 36 WMO
- Highest Point: Eagle Mtn 2,301 ft
- Lowest Point: Lake Superior 608 ft
- Statehood: May 11, 1858



The Stapler was invented in Spring Valley

The Mall of America is the size of 78 football fields.

Minnesota has one recreational boat for every 6 people, more than any other state



Final Thoughts

- BWSR is a Conservation Agency
- Conservation usually means wise use not “no use”
- All our jobs should be supporting conservation action
- Going to meetings, pushing paper, signing timesheets, and designing practices should all be supporting more conservation

Questions?

